

IN THE CLAIMS:

Please cancel claims 1-34 without prejudice or disclaimer, and substitute new claims 35-68 therefor as follows:

Claims 1-34 (Cancelled).

35. (New) A pneumatic tire comprising:

a carcass structure having at least one carcass ply and at least one annular reinforcing structure associated with said carcass ply;

a pair of axially opposite side walls on said carcass structure;

a belt structure arranged at a radially outer position with respect to said carcass structure; and

a tread band arranged at a radially outer position with respect to said belt structure and generally comprising a first elastomeric material incorporating at least one portion substantially of a second elastomeric material,

wherein the tread band comprises at least one groove defined in said at least one portion substantially of the second elastomeric material;

wherein the ratio between the modulus of elasticity under compression at 100°C of the second elastomeric material and the modulus of elasticity under compression at 100°C of the first elastomeric material is not lower than about 1.30; and

wherein the ratio between the IRHD hardness at 100°C of the second elastomeric material, measured in accordance with standard ISO 48, and the IRHD

hardness at 100°C of the first elastomeric material, measured in accordance with standard ISO 48, is lower than about 1.10.

36. (New) The pneumatic tire according to claim 35, wherein the ratio between the modulus of elasticity under compression at 100°C of the second elastomeric material and the modulus of elasticity under compression at 100°C of the first elastomeric material is about 1.30 to about 1.50.

37. (New) The pneumatic tire according to claim 35, wherein the modulus of elasticity under compression at 100°C of said first elastomeric material is about 4 to about 8 MPa.

38. (New) The pneumatic tire according to claim 35, wherein the modulus of elasticity under compression at 100°C of said second elastomeric material is about 6 to about 12 MPa.

39. (New) The pneumatic tire according to claim 35, wherein the ratio between the IRHD hardness at 100°C of the second elastomeric material, measured in accordance with standard ISO 48, and the IRHD hardness at 100°C of the first elastomeric material, measured in accordance with standard ISO 48, is about 1 to about 1.05.

40. (New) The pneumatic tire according to claim 35, wherein the IRHD hardness at 100°C of the first elastomeric material, measured in accordance with standard ISO 48, is about 50 to about 70.

41. (New) The pneumatic tire according to claim 35, wherein the IRHD hardness at 100°C of the second elastomeric material, measured in accordance with standard ISO 48, is about 50 to about 70.

42. (New) The pneumatic tire according to claim 35, wherein the ratio between the Mooney viscosity ML (1+4) at 100°C of the second unvulcanized elastomeric material, measured in accordance with standard ASTM D5289, and the Mooney viscosity ML (1+4) at 100°C of the first unvulcanized elastomeric material, measured in accordance with standard ASTM D5289, is about 1 to about 1.10.

43. (New) The pneumatic tire according to claim 35, wherein the Mooney viscosity ML (1+4) at 100°C of the first unvulcanized elastomeric material, measured in accordance with standard ASTM D5289, is about 50 to about 60.

44. (New) The pneumatic tire according to claim 35, wherein the Mooney viscosity ML (1+4) at 100°C of the second elastomeric material, measured in accordance with standard ASTM D5289, is about 50 to about 60.

45. (New) The pneumatic tire according to claim 35, wherein said second elastomeric material comprises at least one diene elastomeric polymer reinforced with at least one reinforcing material selected from layered inorganic materials, short fibrillated fibers of polyamide materials and mixtures thereof, said at least one reinforcing material being dispersed in said diene elastomeric polymer.

46. (New) The pneumatic tire according to claim 45, wherein said first and second elastomeric materials comprise respective diene elastomeric polymers having substantially the same mechanical characteristics.

47. (New) The pneumatic tire according to claim 45, wherein at least one layered inorganic material has an individual layer thickness of 0.01 nm to 30 nm.

48. (New) The pneumatic tire according to claim 45, wherein said second elastomeric material comprises 1 to 80 parts by weight of said at least one layered inorganic material per 100 parts by weight of diene elastomeric polymer.

49. (New) The pneumatic tire according to claim 48, wherein said second elastomeric material comprises 5 to 40 parts by weight of said at least one layered inorganic material per 100 parts by weight of diene elastomeric polymer.

50. (New) The pneumatic tire according to claim 45, wherein said second elastomeric material comprises 1 to 80 parts by weight of said short fibrillated fibers per 100 parts by weight of diene elastomeric polymer.

51. (New) The pneumatic tire according to claim 50, wherein said second elastomeric material comprises 5 to 40 parts by weight of said short fibrillated fibers per 100 parts by weight of diene elastomeric polymer.

52. (New) The pneumatic tire according to claim 45, wherein said second elastomeric material comprises at least one additional reinforcing filler, in an amount of about 5 to about 80 phr.

53. (New) The pneumatic tire according to claim 52, wherein said additional reinforcing filler is in an amount of about 10 to about 50 phr.

54. (New) The pneumatic tire according to claim 52, wherein said additional reinforcing filler is carbon black.

55. (New) The pneumatic tire according to claim 52, wherein said additional reinforcing filler is silica.

56. (New) The pneumatic tire according to claim 35, wherein the tread band is provided with a plurality of transversal and/or longitudinal grooves defined at respective portions of the tread band substantially of the second elastomeric material.

57. (New) The pneumatic tire according to claim 35, wherein said at least one portion of the tread band substantially of the second elastomeric material is shaped in a way so as to form a lining surrounding said at least one groove.

58. (New) The pneumatic tire according to claim 57, wherein said lining has a thickness of 1 to 10 mm.

59. (New) The pneumatic tire according to claim 35, wherein the tread band comprises:

- i) at least one radially extending first sector substantially of said second elastomeric material; and
- ii) a plurality of radially extending second sectors positioned at axially opposite sides of said at least one first sector, said second sectors being substantially of said first elastomeric material, wherein said at least one groove is formed in said at least one first sector.

60. (New) The pneumatic tire according to claim 35, wherein said at least one groove is a longitudinal groove extending substantially the entire circumferential development of the tread band.

61. (New) The pneumatic tire according to claim 60, wherein the tread band is provided with a plurality of longitudinal grooves and wherein said grooves are formed in respective first sectors of the tread band radially extending and axially spaced apart from each other.

62. (New) The pneumatic tire according to claim 59, wherein said at least one first sector radially extends substantially for the entire thickness of the tread band.

63. (New) The pneumatic tire according to claim 35, wherein an additional layer of elastomeric material is interposed between said tread band and said belt structure.

64. (New) The pneumatic tire according to claim 63, wherein said layer is substantially said second elastomeric material.

65. (New) The pneumatic tire according to claim 63, wherein said layer has a thickness of 1 to 5 mm.

66. (New) The pneumatic tire according to claim 59, wherein the width of said at least one first sector is at least equal to the width of said at least one groove.

67. (New) The pneumatic tire according to claim 66, wherein the difference between the width of said at least one first sector and the width of said at least one groove is 4 to 10 mm:

68. (New) The pneumatic tire according to claim 59, wherein said at least one groove is positioned astride the median plane of said at least one first sector.